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A LIST OF THE MARINE MAMMALS OF THE WORLD

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INTRODUCTION

Listed below are the living marine mammals of the world: the sea otter, pinnipeds, sirenians, and cetaceans. Certain animals descended from marine ancestors but now living in inland waters are included. (The Caspian and Baikal seals may have been confined to inland waters since the origin of the Phocidae from their presumed terrestrial ancestors (McLaren, 1960).) A bibliography of sources is given on page 9.

Any attempt to classify the marine mammals is beset with special difficulties arising from the fact that they are poorly known. Some of them live on the high seas, others on remote oceanic islands and among polar ice fields. Some of the sirenians and smaller cetaceans live in tropical waters seldom visited by naturalists. The carcasses of marine mammals are large-bodied, greasy, and bloody, and often putrify before they are brought to the attention of biologists. In general, they are difficult and expensive to collect and to preserve for study. As a result, many kinds are known to science only from bones and fragments.

For example, in 1952, Yamada collected a strange 8-foot porpoise at Taiji, Japan. Upon dissection, it proved to be *Feresa attenuata*, known up to then from two skulls which had lain for a century in the British Museum. Only 6 years ago, a new genus of dolphin *(Lagenodelphis)* was described by Fraser (1956) on the basis of a skeleton recovered from a sea beach at Borneo; and in 1937, a whale which proved to represent a remarkable new genus *(Tasmacetus)* of beaked whale washed ashore on New Zealand. In 1958, in the collections of the U.S. National Museum and the British Museum, there was apparently only one skull—a broken one—of the ribbon seal *(Histriophoca fasciata)*, yet the population of this animal in Bering and Okhotsk Seas must surely be numbered in tens of thousands.

Thus, any list of the marine mammals, especially of the smaller cetaceans, can only be regarded as extremely provisional. Classification in the following list is carried to the subspecific level for pinnipeds and sirenians. Cetaceans, in general, are too poorly known for subspecies to be defined, but we have listed those proposed races which appear to be valid. The sea otter is monotypic. Some, but not all, synonyms in current use are shown. The arrangement of the pinnipeds follows Scheffer (1958); the arrangement of cetaceans follows Rice (In Anderson and Jones, MS).

The distribution of each species is shown briefly.

[Note: Hershkovitz, 1961, has shown that the following names take priority over those used in this list:

Susu Lesson, 1828, for *Platanista* Wagler, 1830

Tursiops nesarnack Lacépède, 1804, for *T. truncatus* Montagu, 1821

Nodus Wagler, 1830, for *Mesoplodon* Gervais, 1850

According to the most recent edition of the International Code (International Trust for Zoological Nomenclature, 1961), these names are *nomina oblita* and cannot replace names which have been in universal use for over 50 years.]

SEA OTTER

Order Carnivora (carnivores)
Superfamily Canoidea (dogs, raccoons, bears, weasels, and others)
Family Mustelidae (weasels and others)
Subfamily Lutrinae (otters)
Genus Enhydra Fleming, 1822
Enhydra lutris Linnaeus, 1758 (sea otter). Shallow waters of the North Pacific Ocean and Bering Sea. Main breeding groups are along the shores of California, western Alaska, Aleutian Islands, Commander Islands, and Kurile Islands.

PINNIPEDS

Order Pinnipedia (pinnipeds; seals, sea lions, and walrus)
Superfamily Otarioidea (walking seals)
Family Otariidae (otariids; "eared" seals)
Subfamily Otariinae (sea lions)
Genus Otaria Péron, 1816
Otaria byronia Blainville, 1820 (= *O. flavescens* Shaw, 1800) (South American sea lion). Coastal waters from Brazil and Peru southward to Strait of Magellan and Falkland Islands.
Genus Eumetopias Gill, 1866
Eumetopias jubata Schreber, 1776 (Steller sea lion; northern sea lion). Breeding populations from northeastern Bering Sea, Aleutian Islands, and west coast of North America, southward to southern California, westward to Commander Islands, Kamchatka, and Japan.
Genus Zalophus Gill, 1866
Zalophus californianus Lesson, 1828 (California sea lion; black sea lion). The breeding population of one race (*Z. c. californianus*) extends from central California to Baja California. A second race (*Z. c. japonicus* Peters, 1866) is known from the Sea of Japan; and a third race (*Z. c. wollebaeki* Sivertsen, 1953) from the Galapagos Islands.
Genus Neophoca Gray, 1866 (Tasman sea lions)
Neophoca cinerea Péron, 1916 (Australian sea lion; white-capped sea lion). Coastal waters of South Australia.
Neophoca hookeri Gray, 1844 (New Zealand sea lion), Subantarctic islands south of New Zealand; breeds only on Auckland Islands.
Subfamily Arctocephalinae (fur seals)
Genus Arctocephalus É. Geoffroy Saint-Hilaire and F. Cuvier, 1826 (southern fur seals)
Arctocephalus australis Zimmermann, 1783 (South American fur seal). Members of one race (*A. a. australis*) breed among the Falkland Islands; a second race (*A. a. gracilis* Nehring, 1887) along the coast from Brazil and Peru to Strait of Magellan; and a third race (*A. a. galapagoensis* Heller, 1904) among the Galapagos Islands.
Arctocephalus doriferus Wood Jones, 1925 (Australian fur seal). There are two breeding groups; one along coast of southern Australia and Tasmania, and one along southwestern Australia.
Arctocephalus forsteri Lesson, 1828 (New Zealand fur seal). Southern New Zealand and nearby subantarctic islands.
Arctocephalus philippii Peters, 1866 (Philippi fur seal; Guadalupe fur seal). One race (*A. p. philippii*), perhaps now extinct, is known from Islas Juan Fernández, west of Peru; and another race (*A. p. townsendi* Merriam, 1897) now known only from Isla de Guadalupe, formerly occurred from Farallon Islands, California, south to Socorro Island, Mexico.
Arctocephalus pusillus Schreber, 1776 (South African fur seal). Temperate coastal waters of southern and southwestern Africa.
Arctocephalus tropicalis Gray, 1872 (Kerguelen fur seal). Subantarctic islands of Atlantic Ocean and Indian Ocean. Members of one race (*A. t. tropicalis*) breed north of the antarctic convergence and members of another (*A. t. gazella* Peters, 1875) south of it.
Genus Callorhinus Linnaeus, 1758
Callorhinus ursinus Linnaeus, 1758 (northern fur seal). Members of two groups breed in Bering Sea on the Pribilof and Commander Islands; while members of two

others breed in Sea of Okhotsk on Robben Island and the northern Kuriles. The four groups are anatomically indistinguishable.

Family Odobenidae

Genus Odobenus Brisson, 1762

Odobenus rosmarus Linnaeus, 1758 (walrus). Shallow waters near ice in the Arctic Ocean and adjacent seas. A North Atlantic race *(O. r. rosmarus)* and a North Pacific race *(O. r. divergens* Illiger, 1815) have been described.

Superfamily Phocoidea (crawling seals; "earless" seals)

Family Phocidae

Subfamily Phocinae

Tribe Phocini

Genus Phoca Linnaeus, 1758

Phoca vitulina Linnaeus, 1758 (harbor seal). Shores of North America and Eurasia from about 30° N to the edge of arctic ice. Five races are tentatively recognized, one each from the eastern Atlantic *(P. v. vitulina);* western Atlantic *(P. v. concolor* De Kay, 1842); eastern Pacific *(P. v. richardi* Gray, 1864); western Pacific *(P. v. largha* Pallas, 1811); and Seal Lakes complex of Ungava Peninsula *(P. v. mellonae* Doutt, 1942).

Genus Pusa Scopoli, 1777

Pusa hispida Schreber, 1775 (ringed seal). Near ice throughout the Arctic Ocean and adjacent seas, and in two lakes. Six races are tentatively recognized, one each from the Arctic Ocean *(P. h. hispida);* Okhotsk Sea (*P. h. ochotensis* Pallas, 1811); Bering Sea (*P. h. krascheninikovi* Naumov and Smirnov, 1936); Baltic Sea (P. *h. botnica* Gmelin, 1788); Lake Ladoga (*P. h. ladogensis* Nordquist, 1899); and Lake Saimaa and adjacent lakes (*P. h. saimensis* Nordquist, 1899).

Pusa sibirica Gmelin, 1788 (Baikal seal). Only in Lake Baikal, U.S.S.R., a freshwater body which freezes in winter.

Pusa caspica Gmelin, 1788 (Caspian seal). Only in Caspian Sea, U.S.S.R., the northern end of which freezes in winter.

Genus Halichoerus Nilsson, 1820

Halichoerus grypus Fabricius, 1791 (gray seal). North Atlantic Ocean, along shores of Novaya Zemlya westward in temperate waters to Labrador, rarely south to France and New Jersey. The Baltic, East Atlantic, and West Atlantic populations differ greatly in their breeding biology, but are not regarded as subspecifically distinct.

Genus Histriophoca Gill, 1873

Histriophoca fasciata Zimmermann, 1783 (ribbon seal). North Pacific Ocean, in and along edges of sea ice from western Alaska to Kamchatka, Okhotsk Sea, and northern Japan.

Genus Pagophilus Gray, 1844

Pagophilus groenlandicus Erxleben, 1777 (harp seal). North Atlantic Ocean, in and along edges of sea ice from northern shores of Europe, including White Sea, to eastern Canada. White Sea, Jan Mayen, and Newfoundland breeding stocks are perhaps distinct.

Tribe Erignathini

Genus Erignathus Gill, 1866

Erignathus barbatus Erxleben, 1777 (bearded seal). Circumboreal at edges of ice; along all coasts and islands of northern Eurasia and northern North America. North Atlantic and North Pacific races have been described (*E. b. barbatus* and *E. b. nauticus* Pallas, 1811).

Subfamily Monachinae

Tribe Monachini (monk seals)

Genus Monachus Fleming, 1822

Monachus monachus Hermann, 1779 (Mediterranean monk seal). Monk seals are thinly scattered along the Anatolian coast of the Black Sea and Adriatic Sea; coast and islands of Mediterranean Sea, southward to Spanish West Africa and Canary Islands.

Monachus tropicalis Gray, 1850 (Caribbean monk seal). The former range included shores and islands of the Caribbean Sea and Gulf of Mexico. This seal is perhaps now extinct.

Monachus schauinslandi Matschie, 1905 (Hawaiian monk seal). Breeds on Leeward Chain of the Hawaiian Islands, from French Frigate Shoals to Kure Atoll; straggles southeast to Hawaii.

Tribe Lobodontini (antarctic phocids, except elephant seals)

Genus Lobodon Gray, 1844.

Lobodon carcinophagus Hombron and Jacquinot, 1842 (crabeater seal). Crabeaters

are circumpolar and abundant in the Southern Ocean, following edges of pack ice; straggling to southern tips of New Zealand, Australia, Tasmania, and South America.

Genus Ommatophoca Gray, 1844

Ommatophoca rossi Gray, 1844 (Ross seal) In and along edges of pack ice in Southern Ocean, south of 60° S.

Genus Hydrurga Gistel, 1848

Hydrurga leptonyx Blainville, 1820 (leopard seal). Leopard seals are circumpolar in the Southern Ocean and are recorded from many subantarctic islands, as well as the southern tips of New Zealand, Australia, South America, and South Africa.

Genus Leptonychotes Gill, 1872

Leptonychotes weddelli Lesson, 1826 (Weddell seal) Circumpolar in the Southern Ocean, south to 80° S in the Bay of Whales; straggling to subantarctic islands and as far north as Uruguay, 35° S.

Subfamily Cystophorinae (hooded seal and elephant seals)

Genus Cystophora Nilsson, 1820

Cystophora cristata Erxleben, 1777 (hooded seal; bladdernose seal). North Atlantic Ocean at edges of ice from Novaya Zemlya to eastern Canada. Jan Mayen and Newfoundland breeding stocks are perhaps distinct.

Genus Mirounga Gray, 1827 (elephant seals)

Mirounga leonina Linnaeus, 1758 (southern elephant seal). Circumpolar on subantarctic islands, south to edges of ice at 78° S. The southern elephant seal breeds along a continental coast only at Argentina.

Mirounga angustirostris Gill, 1866 (northern elephant seal). Breeds on a few islands off Baja California and California; nomadic individuals are seen as far north as British Columbia and even Alaska.

SIRENIANS

Order Sirenia (sirenians; sea cows)

Family Dugongidae

Subfamily Dugonginae

Genus Dugong Lacépède, 1799

Dugong dugon P. L. S. Müller, 1776 (dugong). In tropical bays and estuaries of the Indian and western Pacific Oceans on both sides of the equator; from the Red Sea south along the east coast of Africa to Mozambique and Madagascar (23° S); northeast to Amami Oshima (Ryukyu Islands); east to Palau and the Solomon Islands; southeast to northern Australia; probably exterminated in many localities within its range. It quite certainly does not extend to the Marshall Islands, though Carter et al. (1945, p. 136) listed it from here.

Subfamily Hydrodamalinae

Genus Hydrodamalis Retzius, 1794

Hydrodamalis gigas Zimmermann, 1780 (Steller sea cow; great northern sea cow). Discovered on Bering Island in western Bering Sea in 1741, the Steller sea cow was exterminated by 1768. In historic times, it lived only on Bering and Copper Islands and its total population probably did not exceed one or two thousand animals. Bones (of a stranded animal?) have been found on Attu, the westernmost Aleutian Island.

Family Trichechidae

Genus Trichechus Linnaeus, 1758 (manatees). General range, shallow tropical marine waters, estuaries, and rivers on both sides of the Atlantic Ocean.

Trichechus manatus Linnaeus, 1758 (Caribbean manatee). Two races have been described: *T. m. manatus* from "Bay of Campeche to Río Atrato, Colombia . . . coast and lower reaches of rivers of northeastern South America and West Indies" and *T. m. latirostris* Harlan, 1824 from "coast and coastal rivers of United States from Beaufort, N. C., to Florida Keys and coasts of Gulf of México; westward along coast of Texas to mouth of Rio Grande" (Miller and Kellogg, 1955, p. 790-791).

Trichechus senegalensis Link, 1795 (West African manatee). "This manatee lives in the lower reaches of the West African rivers from Senegal to Angola and in the coastal lagoons" (Allen, 1942, p. 547).

Trichechus inunguis Natterer, 1883 (Amazon manatee). "Rivers of northeastern South America, particularly the Amazon and Orinoco systems" (Hatt, 1934, p. 538).

CETACEANS

Order Cetacea (whales, dolphins, and porpoises)

Suborder Odontoceti (toothed cetaceans)

Family Platanistidae (river dolphins)

Subfamily Platanistinae

Genus Platanista Wagler, 1830

Platanista gangetica Lebeck, 1801 (susu; Ganges dolphin). Indus, Ganges, and Brahmaputra Rivers of India.

Subfamily Iniinae

Genus Inia D'Orbigny, 1834

Inia geoffrensis Blainville, 1817 (boto; bufeo; Amazon dolphin). South America, in Amazon and Orinoco basins.

Genus Lipotes Miller, 1918

Lipotes vexillifer Miller, 1918 (white flag dolphin; pei c'hi; Chinese lake dolphin). Restricted to Tung Ting Lake on the upper Yangtse River, China.

Subfamily Pontoporiinae (= Stenodelphinae)

Genus Pontoporia Gray, 1846 (= Stenodelphis D'Orbigny and Gervais, 1847)

Pontoporia blainvillei Gervais, 1844 (La Plata dolphin; franciscana). South America, in Rio de la Plata and adjacent coastal waters.

Family Delphinidae (ocean dolphins)

Subfamily Monodontinae (white whale and narwhal)

Genus Delphinapterus Lacépède, 1804

Delphinapterus leucas Pallas, 1776 (white whale; beluga). Arctic Ocean and adjacent seas. Three races are recognized (Tomilin, 1957): *D. l. dorofeevi* Barabash and Klumov, 1935, from Okhotsk Sea; *D. l. marisalbi* Ostroumov, 1935 (= *D. l. freimani* Klumov, 1935) in Barents and White Seas; and *D. l. leucas* in remainder of range.

Genus Monodon Linnaeus, 1758

Monodon monoceros Linnaeus, 1758 (narwhal). Atlantic sector of Arctic Ocean.

Subfamily Delphininae

Genus Phocoena G. Cuvier, 1817. According to Norris and McFarland (1958) there are four species:

Phocoena phocoena Linnaeus, 1758. (Harbor porpoise). Coastal waters of North Atlantic and North Pacific north to Arctic Ocean in summer; West Africa. The Pacific form is sometimes (e.g., Tomilin, 1957) regarded as a distinct race, *P. p. vomerina* Gill, 1865, but according to Norris and McFarland, it is not separable. The isolated population in the Black Sea has been separated as *P. p. relicta* Abel, 1905.

Phocoena sinus Norris and McFarland, 1958 (Gulf of California porpoise). Gulf of California and probably subtropical waters off the west coast of Mexico.

Phocoena dioptrica Lahille, 1912 (spectacled porpoise). South Atlantic: Argentina, Falkland Islands, and South Georgia.

Phocoena spinipinnis Burmeister, 1865 (Burmeister porpoise; black porpoise). Argentina, Chile, and Peru.

Genus Neophocaena Palmer, 1899 (= Neomeris Gray, 1846, preoccupied).

Neophocaena phocaenoides G. Cuvier, 1829 (black finless porpoise). Warm coastal waters and certain rivers from Japan, Borneo, and Java, west to India. The type specimen allegedly came from the Cape of Good Hope; the species does not occur there, according to Barnard (1954), yet Gibson-Hill (1950) claimed to have observed it off the coast of South Africa.

Genus Phocoenoides Andrews, 1911

Phocoenoides dalli True, 1885 (Dall porpoise). North Pacific.

Phocoenoides truei Andrews, 1911. Japanese waters. Taxonomic status problematical; range overlaps that of *P. dalli*, but the two forms never mix in the same school and no intermediate forms have been found (K. W. Kenyon, personal communication).

Genus Cephalorhynchus Gray, 1846. According to Fraser (1949, p. 315) in this genus are included "a number of southern, mostly cold-water dolphins of small size, porpoise-like form and striking black and white coloration." The taxonomy of the group is very poorly understood (Harmer, 1922). The following forms are currently recognized:

Cephalorhynchus commersoni Lacépède, 1804 (Commerson dolphin; piebald dolphin). Tierra del Fuego, Strait of Magellan, coast of Patagonia, and Falkland Islands; also Kerguelen Island in the southern Indian Ocean.

Cephalorhynchus eutropia Gray, 1849 (= *C. albiventris* Perez, 1896) (white-bellied dolphin; black dolphin). Coast of Chile. (Fraser, 1949, used the name *albiventris*, but gave no reason for rejecting the name *eutropia*.)

Cephalorhynchus heavisidei Gray, 1828 (tonine; Heaviside dolphin). Cape of Good Hope.

Cephalorhynchus hectori Van Beneden, 1881 (Hector dolphin). Coastal waters of New Zealand. A "pied" color phase has been given the name *C. h. bicolor* Oliver, 1946. *C. albifrons* True, 1899 (white-headed dolphin) is said to occur in New Zealand waters, but it is not mentioned by Oliver, 1922a; perhaps it also is a color aberration of *C. hectori*.

Genus Lagenorhynchus Gray, 1846. Bierman and Slijper (1948) have concluded that four or five species are valid.

Lagenorhynchus albirostris Gray, 1846 (white-beaked dolphin). North Atlantic.

Lagenorhynchus acutus Gray, 1828 (Atlantic white-sided dolphin). North Atlantic.

Lagenorhynchus obliquidens Gill, 1865 (? = *L. thicolea* Gray, 1849) (Pacific white-sided dolphin; Pacific striped dolphin). North Pacific. Possibly conspecific with *L. cruciger*.

Lagenorhynchus cruciger Quoy and Gaimard, 1824. (Dusky dolphin). Southern Ocean from about 25° S. to the border of pack ice. Synonyms include *L. superciliosus* Lesson and Garnot, 1826; *L. obscurus* Gray, 1828; *L. fitzroyi* Waterhouse, 1839; *L. australis* Peale, 1848; *L. wilsoni* Lillie, 1915; and *Sagmatias amblodon* Cope, 1866.

Lagenorhynchus electra Gray, 1846 (broad-beaked dolphin). Tropical Atlantic, Pacific, and Indian Oceans.

Genus Lagenodelphis Fraser, 1956

Lagenodelphis hosei Fraser, 1956 (Sarawak dolphin). Known only from a skeleton from the mouth of the Lutong River, Sarawak, Borneo.

Genus Delphinus Linnaeus, 1758

Delphinus delphis Linnaeus, 1758 (common dolphin). Warm and temperate waters of all seas. Three races are recognized (Tomilin, 1957): *D. d. delphis* in the Atlantic and (?) Indian Oceans; *D. d. bairdi* Dall, 1873, in the Pacific; and *D. d. ponticus* Barabash, 1935, isolated in the Black Sea.

Delphinus capensis Gray, 1828 (Cape dolphin). South Africa, Japan, and (?) Palestine.

Delphinus roseiventris Wagner, 1853 (red-bellied dolphin). Banda Sea and Torres Strait.

Genus Stenella Gray, 1866. (= Prodelphinus Van Beneden and Gervais, 1877). There is no appropriate vernacular name for this group, though "spotted dolphins" and "ocean dolphins" have been used. Fraser (1949, p. 332) stated that "a host of species has been described" and Ellerman and Morrison-Scott (1951, p. 732) stated that "this genus is in chaos." All (?) oceans. This genus seems to be divisible into three species-groups: (1) relatively long-snouted forms with about 50 teeth in each jaw, and a rather uniform coloration, typified by *S. longirostris;* (2) shorter snouted forms with about 44 teeth in each jaw, and a dark stripe along the flank, typified by *S. caeruleoalbus;* and (3) shorter snouted forms with about 37 teeth in each jaw, usually more or less spotted, and often with a "bridle" pattern on the head, which include *plagiodon, frontalis,* and *attenuata.* The taxonomy of the latter group, particularly, is in a chaotic state. All that can be done at present is to list the better known forms, and include as possible synonyms those named forms that seem to be closest to them. See Fraser, 1950.

Stenella longirostris Gray, 1828 (long-beaked dolphin). (?) All tropical seas. Possible synonyms include *S. microps* Gray, 1846, from the Tres Marías Islands off the west coast of Mexico, and *S. alope* Gray, 1850, from Ceylon.

Stenella caeruleoalba Meyen, 1833 (blue dolphin; blue-white dolphin; euphrosyne dolphin). Recorded from South African, South American, and New Zealand waters. *S. c. euphrosyne* Gray, 1846 (= *S. c. styx* Gray, 1846) from the North Atlantic and North Pacific appears to represent a distinct race.

Stenella plagiodon Cope, 1866 (spotted dolphin). Tropical Atlantic. *Stenella graffmani* Lönnberg, 1934, from the tropical eastern Pacific is perhaps closely related.

Stenella frontalis G. Cuvier, 1829 (? = *S. dubia* G. Cuvier, 1812; = *S. fraenata* F. Cuvier, 1836) (bridled dolphin). Warmer waters of Atlantic and Indian Oceans.

Stenella attenuata Gray, 1846 (? = *S. malayana* Lesson, 1826) (narrow-snouted dolphin). Tropical Atlantic and Indian Oceans.

Genus Lissodelphis Gloger, 1841

Lissodelphis borealis Peale, 1848 (northern right-whale dolphin). North Pacific.

Lissodelphis is not recorded from the North Atlantic, although it is a cold-water form sometimes seen far at sea.

Lissodelphis peroni Lacépède, 1804 (southern right-whale dolphin). Temperate waters of Southern Ocean.

Genus Steno Gray, 1846

Steno bredanensis Lesson, 1828 (= *S. rostratus* Desmarest, 1817, preocc.) (rough-toothed dolphin). Temperate and tropical seas of the world. A specimen from the coast of southern East Africa was described by Mirando-Ribeiro in 1936 as *Stenopontistes zambesicus*, new genus and species (Ellerman et al., 1953, p. 330).

Genus Sotalia Gray, 1866. There is no appropriate vernacular name for the group, though "river dolphins" and "white dolphins" have been used. The species are poorly defined. Most members live in tropical rivers and estuaries; a few in warm coastal seas, South America, Africa, India, and the Orient (Fraser, 1949, p. 333).

Sotalia pallida Gervais, 1855 (= *S. tucuxi* Gray, 1856; *S. fluviatilis* Van Beneden and Gervais, 1880) (Amazon river dolphin; bufeo; tucuxi; pirayaguara). Upper Amazon River drainage. (Not to be confused with *Inia geoffrensis*.)

Sotalia guianensis Van Beneden, 1864 (= *S. brasiliensis* Van Beneden, 1875) (Guiana river dolphin). Coastal waters and streams of northeastern South America, from Rio de Janeiro to British Guiana.

Sotalia chinensis Osbeck, 1765 (= *S. sinensis* Desmarest, 1822) (Chinese white dolphin). Coast of southern China. For discussion of the name, see Hershkovitz, 1961.

Sotalia borneensis Lydekker, 1901 (Bornean white dolphin). Sarawak coast of Borneo; doubtfully recorded from Straits of Malacca. Probably closely related to *S. chinensis*.

Sotalia lentiginosa Owen, 1866 (speckled dolphin; bolla gadimi). India, Ceylon; one specimen from False Bay, South Africa.

Sotalia plumbea G. Cuvier, 1829 (plumbeous dolphin; lead-colored dolphin). Indian Ocean: Ceylon, Madras, Malabar coast, Karachi, Burma, and Strait of Malacca.

Sotalia teuszi Kükenthal, 1892. West Africa, from Cameroons to Sénégal.

Genus Tursiops Gervais, 1855

Tursiops truncatus Montagu, 1821 (bottle-nosed dolphin). Coastal waters of Europe (including Baltic, Mediterranean, and Black Seas), southeastern United States, West Indies, eastern South America, Seychelles, Muscat, Bay of Bengal, New Zealand, Japan, Hawaii, and west coast of North and Middle America. *T. t. gilli* Dall, 1873 (? = *T. nuuanu* Andrews, 1911), from the Pacific is distinct from the Atlantic populations. Because it has been intensively studied in the wild and in oceanaria it "must now be classed as the best-known cetacean species" (Norris and Prescott, 1961, p. 291).

Tursiops aduncus Ehrenberg, 1833 (= *T. abusalam* Rüppell, 1842; *T. catalania* Gray, 1862; *Sotalia gadamu* Owen, 1866) (gadamu). Red Sea, Indian Ocean (west Pakistan, India, Sumatra, Java), South Africa, and Australia. By some authorities (e.g., Tomilin 1957) considered conspecific with *T. truncatus*.

Genus Grampus Gray, 1828 (= Grampidelphis Iredale and Troughton, 1933)

Grampus griseus G. Cuvier, 1812 (grampus; gray grampus; Risso dolphin). All seas except polar.

Genus Globicephala Lesson, 1828

Globicephala melaena Traill, 1809 (common pilot whale; common blackfish). Nominate race in North Atlantic Ocean; *G. m. edwardi* A. Smith, 1834, throughout temperate waters of Southern Hemisphere (Davis, 1960).

Globicephala macrorhyncha Gray, 1846 (short-finned pilot whale; short-finned blackfish). Tropical Atlantic, Indian, (and Pacific?) Oceans.

Globicephala scammoni Cope, 1869 (North Pacific pilot whale; North Pacific blackfish). North Pacific Ocean; in eastern waters from Alaska to Guatemala. *G. sieboldi* Gray, 1846, is probably the correct name for this form, and it is probably conspecific with *G. macrorhyncha*.

Genus Orcaella Gray, 1866 (= Orcella Anderson, 1871)

Orcaella brevirostris Owen, 1866 (Irrawaddy River dolphin). One race (*O. b. brevirostris*) occurs in marine waters from

Bay of Bengal to Borneo and Java; another (*O. b. fluminalis* Anderson, 1871) occurs in the Irrawaddy River, Burma.

Genus Feresa Gray, 1871

Feresa attenuata Gray, 1875 (pygmy killer whale). Known only from the South Pacific Ocean, Japan, and Sénègal. Regarded by Fraser (1960, p. 706) "as one of the world's rarest large mammals."

Genus Pseudorca Reinhardt, 1862

Pseudorca crassidens Owen, 1846 (false killer whale). All temperate and tropical seas.

Genus Orcinus Fitzinger, 1860 (= Orca Gray, 1846 preoccupied; = *Grampus* auct., nec Gray, 1828)

Orcinus orca Linnaeus, 1758 (= *O. rectipinna* Cope, 1869) (killer whale). All seas; chiefly coastal.

Family Ziphiidae (beaked whales)

Genus Tasmacetus Oliver, 1937

Tasmacetus shepherdi Oliver, 1937 (Tasman beaked whale). Known only from three specimens stranded on New Zealand.

Genus Mesoplodon Gervais, 1850. About 10 or 11 named forms are held to be valid (Nishiwaki and Kamiya, 1958). The genus is in need of revision. Two subgenera are recognized: *Dioplodon* Gervais, 1850, for the large-toothed species *(densirostris, ginkgodens, layardi,* and *stejnegeri),* and *Mesoplodon* for the small-toothed species. Most of the species are apparently rare.

Mesoplodon bidens Sowerby, 1804 (Sowerby beaked whale). North Atlantic.

Mesoplodon europaeus Gervais, 855 (= *Mesoplodon gervaisi* Deslongchamps, 1866) (Gulf Stream beaked whale). Tropical and near tropical western North Atlantic.

Mesoplodon mirus True, 1913 (True beaked whale). Temperate western North Atlantic, to British Isles.

Mesoplodon pacificus Longman, 1926 (Longman beaked whale). Type locality, Mackay, South Australia. (Sometimes regarded as a subspecies of *M. europaeus* but according to Moore, 1960, it must be regarded as a full species.)

Mesoplodon grayi Haast, 1876 (scamperdown whale). South Africa, South Australia, New Zealand, Argentina, and Netherlands.

Mesoplodon hectori Gray, 1871 (Hector beaked whale). New Zealand and Falkland Islands.

Mesoplodon stejnegeri True, 1885 (= *M. bowdoini* Andrews, 1908) (saber-toothed whale; Stejneger beaked whale). From North Pacific to New Zealand.

Mesoplodon ginkgodens Nishiwaki and Kamiya, 1958 (Japanese beaked whale). Japan

Mesoplodon layardi Gray, 1865 (strap-toothed whale). South Africa, South Australia, New Zealand, and the Falkland Islands.

Mesoplodon densirostris Blainville, 1817 (Blainville beaked whale). Worldwide in tropical and subtropical waters.

Genus Ziphius G. Cuvier, 1823

Ziphius cavirostris G. Cuvier, 1823 (goose-beaked whale; Cuvier beaked whale). All oceans.

Genus Berardius Duvernoy, 1851

Berardius arnouxi Duvernoy, 1851 (Arnoux beaked whale). Southern Ocean; known from New Zealand, Falkland Islands, South Georgia, and South Shetlands.

Berardius bairdi Stejneger, 1883 (giant bottle-nosed whale; Baird beaked whale). Japan to Bering Sea and California.

Genus Hyperoodon Lacépède, 1804

Hyperoodon ampullatus Forster, 1770 (= *H. rostratus* Müller, 1776) (northern bottle-nosed whale; flat-headed bottle-nosed whale). North Atlantic Ocean.

Hyperoodon planifrons Flower, 1882 (southern bottle-nosed whale; flat-headed bottle-nosed whale). Southern Ocean; known only from Australia, Argentina, South Georgia, and South Orkneys.

Family Physeteridae (sperm whales)

Subfamily Physeterinae

Genus Physeter Linnaeus, 1758

Physeter catodon Linnaeus, 1758 (= *P. macrocephalus* Linnaeus, 1758) (sperm whale). All oceans. Tomilin (1957) recognizes Northern and Southern Hemisphere races *P. c. catodon* and *P. c. australis* MacLeay, 1851, but the distinction is of doubtful validity.

Subfamily Kogiinae

Genus Kogia Gray, 1846

Kogia breviceps Blainville, 1833 (pygmy

sperm whale). Worldwide in tropical and temperate waters. *Kogia simus* Owen, 1866, may represent a separate species.

Suborder Mysticeti (baleen whales)

Family Balaenidae (right whales). The pygmy right whale *(Caperea)* is very different from the other two species of right whales. The black right whales *(Balaena glacialis)* are often placed in a separate genus (*Eubalaena* Gray, 1864) from the bowhead *(B. mysticetus)*. A review of available literature indicates that the differences between the two species are not as great as is often supposed. Until an adequate comparative study has been made, we believe that the relationships within this family are best expressed by placing the three species in only two genera.

Genus Balaena Linnaeus, 1758

Balaena glacialis Müller, 1776 (black right whale). Temperate waters of the North Atlantic *(B. g. glacialis)*, the North Pacific *(B. g. japonica* Lacépède, 1818 = *B. g. sieboldi* Gray, 1864), and the Southern Hemisphere (*B. g. australis* Desmoulins, 1822).

Balaena mysticetus Linnaeus, 1758 (bowhead whale; Greenland right whale). Arctic Ocean, Bering and Okhotsk Seas; rare.

Genus Caperea Gray, 1864 (= Neobalaena Gray, 1870)

Caperea marginata Gray, 1846 (pygmy right whale). Southern Ocean, including waters off New Zealand, Australia, South America, and South Africa.

Family Eschrichtiidae (gray whales)

Genus Eschrichtius Gray, 1864 (= Rhachianectes Cope, 1869)

Eschrichtius gibbosus Erxleben, 1777 (= *E. glaucus* Cope, 1868) (gray whale). North Pacific Ocean; Bering, Chukchi and Beaufort Seas; formerly in North Atlantic. (For discussion of names see Hall and Kelson, 1959, p. 833-834.) If the Pacific population is eventually shown to be taxonomically separable from the extinct Atlantic form, the name *E. g. glaucus* Cope, 1868, is available for it.

Family Balaenopteridae (rorquals)

Genus Balaenoptera Lacépède, 1804 (incl. Sibbaldus Gray, 1846)

Balaenoptera acutorostrata Lacépède, 1804 (minke whale; little piked whale). All oceans, though rare in tropical waters.

B. bonaerensis Burmeister, 1867 (= *B. huttoni* Gray, 1874) from the Southern Hemisphere is either a distinct species, race, or color phase, which coexists with typical *B. acutorostrata* (Williamson, 1961). The North Pacific population is sometimes (e.g., Tomilin, 1957) regarded as a separate subspecies, *B. a. davidsoni* Scammon, 1872.

Balaenoptera borealis Lesson, 1828 (sei whale) All oceans. Two races are sometimes distinguished, although the differences are not clear: *B. b. borealis* in the Northern Hemisphere, and *B. b. schlegeli* Flower, 1864, in the Southern Hemisphere.

Balaenoptera edeni Anderson, 1878 (= *B. brydei* Olsen, 1912) (Bryde whale). Apparently all tropical and subtropical seas.

Balaenoptera physalus Linnaeus, 1758 (fin whale; finback whale). All oceans. Two races are recognized--a smaller Northern Hemisphere form, *B. p. physalus*, and a larger Southern Hemisphere form, *B. p. quoyi* Fischer, 1830.

Balaenoptera musculus Linnaeus, 1758 (blue whale). All oceans; largely in cooler waters. Two races are recognized: a smaller one, *B. m. musculus*, in the North Atlantic and North Pacific; and a larger one, *B.m. intermedia* Burmeister, 1866, in the Southern Hemisphere. A "pygmy" race (unnamed) has recently been found in the waters around Kerguelen Island (Ichihara, 1961).

Genus Megaptera Gray, 1846

Megaptera novaeangliae Borowski, 1781 (= *M. nodosa* Bonnaterre, 1789) (humpback whale). All oceans. The Southern Hemisphere populations are sometimes regarded as a race (*M. n. lalandi* Fischer, 1829) distinct from the Northern Hemisphere race *(M. n. novaeangliae)*.

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